

**BUREAU OF HIGHWAYS
REQUEST FOR PROPOSAL
for
QUALIFICATIONS BASED SELECTION FOR PREQUALIFIED SERVICES**

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is currently prequalified for this type of work and you are interested in providing services, please indicate your interest by submitting a Proposal. The Proposal must be submitted in accordance with the latest "Vendor Selection Guidelines for Service Contracts", available on the MDOT website.

For efficiency sake, we are asking that the vendor firm provide [6] paper copies of the Proposal to the MDOT project manager named in the attached scope of services.

These copies must be received by [2:00 PM December 2, 2004]. Fax and electronic copies are not acceptable.

In addition, provide one unbound copy to:

Regular Mail:

Secretary, Operations Contract Support
Michigan Department of Transportation
P.O. Box 30050
Lansing, MI 48909

OR

Overnight Mail:

Secretary, Operations Contract Support
Michigan Department of Transportation
425 W. Ottawa
Lansing, MI 48933

This copy is to be received within three working days after the due date and time specified above. Please do not deliver in person.

Any questions relative to the scope of services must be submitted by e-mail to the MDOT project manager. Any questions must be asked at least three working days prior to the due date and time specified above. All questions and their answers will be placed on the MDOT website as soon as possible after receipt of the questions. The names of vendors submitting questions will not be disclosed.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

The selection team will review the information submitted and will select the three firms considered most qualified to perform the engineering services based on the proposals. These three firms will each be scheduled to give a 90 minute presentation. Following the presentations, the selected vendor will be contacted to confirm capacity. Upon confirmation, that firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

The maximum allowable pages for your proposal shall follow the guidelines detailed in Exhibit F of the Vendor Selection Guidelines (October 2004) for greater than \$500,000.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal.

The scope of services is attached to this solicitation.

MDOT Project Manager:

Harold L. Zweng Jr., P.E. Resident Engineer
740 Mill Highway
Tecumseh, Michigan 49286
Phone (517) 423-4858 Fax (517) 423-6014
email: zwengh@michigan.gov

SCOPE OF SERVICES FOR: FULL CONSTRUCTION ENGINEERING SERVICES

I Primary Prequalification Classification:

Bridge Construction Engineering

II Secondary Prequalification Classification:

Road Construction Engineering

DBE Requirement: [10%].

PROJECT DESCRIPTION:

This Scope of Services is for use on the following projects and all are part of the master project

58151/58152 – 75918A:

Control Section

58151/58152

Job Number

75918A, 75929A

76133A, 78296A

78895A, 72832A

Project's Location: I-75 in Berlin, Erie, Frenchtown, LaSalle, and Monroe Townships, the City of Monroe, in Monroe County Michigan.

Project's Type of Work:

Refer to the project Special Provision for Maintaining Traffic for detailed staging and description of work included in each stage / phase. Project consists of concrete pavement patching and diamond grinding on SB I-75, and bridge repairs on NB and SB I-75, from the Ohio state line to Ready Road in Monroe County, as follows:

CS 58151 JN 76133

B01 1&2: Jt replc, deck patch, paint

B03 1&2: Deep overlay, paint, scour

B04 1&2: Jt replc, deck patch, zone paint

B05 1&2: Deep overlay

R01 1&2: Deep overlay, steel rpr, paint

S04 1&2: Deep overlay, paint

S05: Jt replc, deck patch, rail rplc, beam rpr

S06: Shallow overlay, beam rpr

S08: Jt replc, deck patch, P&H, zone paint

S13: Jt replc, deck patch

S14: Jt. Replc, deck patch, P&H, zone paint

CS 58151 JN 75918

B02 1&2: Deck patch, beam rpr, scour

S12: Beam patching repairs

CS 58151 JN 78296

S07: Jt replc, epoxy ovly, P&H, zone paint

S09: Jt replc, deck patch, P&H, zone paint

CS 58151 JN 75929

S11: Shallow overlay, beam rpr

CS 58151 JN 72832

R03: Deep ovly, rail replc, steel rpr, paint, and lighting work

CS 58152 JN 75929

S07: Shallow overlay, beam rpr

CS 58151 JN 78895

15.24 miles of concrete pavement repairs and 23.52 miles of diamond grinding

Phase 1:

I-75 pavement repair from state line to milepoint 5 and from LaPlaisance to N. Dixie Hwy. and R03, B01, S13, S14, R01, S04, B02, and S05 of 58151.

Phase 2:

I-75 pavement repair and S06, S07, B03, S08, and B04 of 58151.

Phase 3:

I-75 pavement repair and S09, B05, and S11 of 58151.

North Dixie Highway:

S12 of 58151

Ready Road:

S07 of 58152

Bridges Located Within Project Limits:

<u>Bridge ID</u>	<u>Location</u>
S07 of 58152	I-75 under Ready Road
S11 of 58151	I-75 under Dunbar Road
S12 of 58151	I-75 under N. Dixie Hwy.
B05 of 58151	I-75 over LaPlaisance Creek
S09 of 58151	I-75 under Mortar Creek Road
B04 of 58151	I-75 over Otter Creek
S07 of 58151	I-75 under Allen Cove Road
B03 of 58151	I-75 SB over Muddy Creek
B06 of 58151	I-75 under Luna Pier Road
B02 of 58151	I-75 over Bay Creek
S05 of 58151	I-75 under Erie Road
S04 of 58151	I-75 over Bay Creek Road
R01 of 58151	I-75 over RR Spur
S13 of 58151	I-75 under I-75 / M-125 Connector

S14 of 58151	I-75 under Ramp B
B01 of 58151	I-75 over Halfway Creek
R03 of 58151	I-75 over River Raisin

Anticipated Start Date of Construction: April of 2005

Anticipated Completion Date of Construction: November 15, 2005

Estimated cost of Project: \$14,500,000.00

Letting Date: February 4, 2005

Construction Notes: The following requirements and / or clarifications are in addition to the standard oversight as shown in the remainder of this document. Please carefully review this document in its entirety.

1. Due to the incentive of this project, work may be conducted on a 7 day, 24-hour basis. The consultant must demonstrate that they have the qualified personnel available to meet this schedule. All consultant and sub-consultant staff shall be shown and be listed by name and responsibility in the prime consultant organization chart. This chart must clearly define the consultant, sub-consultant(s) and the chain of command.
2. The percent CE oversight goal for this project shall be **9.0%** and the fixed fee shall be 11.0%.
3. Full Consultant roadway and bridge staking is required for this project. Contractor staking for roadway and bridges have been removed from this project and all necessary staking shall be completed by the consultant. The consultant will be required to provide all the staking that would normally be performed by the engineer and/or contractor staker.
4. As is typically the case, the consultant will be required to document and process all the IDR's for construction. MDOT staff will not be processing nor creating any FieldManager work nor daily reports. MDOT Construction staff will still approve all contract modifications. The selected consultant team will be required to partner with MDOT construction staff. The consultant shall be in charge of the day to day activities.
5. The consultant shall be required to process **bi-weekly** pay estimates and progress report and chair **weekly** progress meetings.
6. Primary communication issues shall be handled by the Tecumseh staff and MDOT Communication's Department. It is expected that the consultant be available at all times for issues that may need clarification to the Tecumseh staff for public releases.
7. Key prime consultant personnel shall be required to attend a partnering session with the contractor and MDOT staff prior to construction.

Consultant Selection Information

1. OEC plans and the progress clause can be viewed at the Tecumseh Construction Office. Please contact 517-423-4858 to schedule an appointment.
2. Key dates for consultant selection are as follows:
December 2, 2004 Proposals Due
December 8, 2004 Selection and Notification of Short Listed Consultants
December 15, 2004 Presentations of Short Listed Consultant

GENERAL:

The Consultant shall contact the Project Manager prior to beginning any work on this Project. The Consultant shall furnish all services and labor necessary to conduct and complete the Construction Engineering Services described herein. The Consultant shall also furnish all materials, equipment, supplies, and incidentals necessary to perform the Services (other than those designated in writing to be furnished by the Department), and check and/or test the materials, equipment, supplies, and incidentals as necessary in carrying out this work. The Services shall be performed to the satisfaction of the Department consistent with applicable professional standards.

- A. The Consultant's principal contact with the Department shall be through the designated Project Manager.
- B. The Services described herein are financed with public funds. The Consultant shall comply with all applicable Federal and State laws, rules, and regulations. The Consultant shall perform field operations in accordance with MIOSHA regulations and accepted safety practices.
- C. The Consultant agrees to demonstrate knowledge of, and performance in compliance with, the standard construction practices of the Department; the Project construction contract, proposal, and plans; the Standard Specifications for Construction and all applicable publications referenced within; the Michigan Construction Manual; the Materials Sampling Guide; the Materials Quality Assurance Procedures Manual; the Density Control Handbook; and any and all other references, guidelines, and procedures manuals needed to carry out the work described herein in an appropriate manner.

GENERAL DESCRIPTION OF CONSTRUCTION ENGINEERING SERVICES:

The Consultant shall provide, to the satisfaction of the Department, Construction Engineering Services as generally described herein: project administration; inspection; surveying and staking; quality control testing and reporting; measurement, computation, and documentation of quantities; reporting and record keeping; and finaling all project documentation; for construction work to be performed by the Construction Contractor until completion of work by the Construction Contractor and acceptance of the Project and construction engineering services by the Department.

CONSTRUCTION ENGINEERING SERVICES TO BE PERFORMED BY THE CONSULTANT:

- A. **For Project Administration, the Consultant shall:**
 1. **Project Engineer:** Perform as the Project Engineer for the Project consistent with the

- Department's practice and in accordance with the Specifications, Plans, Proposal, the Michigan Construction Manual, the Materials Sampling Guide, and any and all other applicable references, guidelines, and/or procedures manuals. Assign the Project Engineer as liaison between the Consultant and Department-designated Project Manager.
2. **Inspectors:** Perform as the Inspector for the Project consistent with the Department's practice and in accordance with the Specifications, Plans, Proposal, the Michigan Construction Manual, the Materials Sampling Guide, and any and all other applicable references, guidelines, and/or procedures manuals. The consultant shall assign a sufficient number of qualified and experienced technicians to this Project to perform the Services in a quality manner to avoid any delay to the Construction Contractor. Personnel performing inspection and testing on bituminous, portland cement, aggregate or for density must have the appropriate certification and level for the inspection and testing that is being performed.
 3. **Office Support and Equipment:** Provide an experienced office technician knowledgeable about all aspects of the FieldManager system, and procedures regarding project record documentation. Provide administrative support. Provide all computer equipment necessary to run FieldManager system.
 4. **Meetings:** Arrange and conduct conferences and meetings required to carry out the Services or as may be required by the Project Manager. Prepare and distribute minutes of all meetings except the Preconstruction meeting.
 5. **Coordination:** Provide appropriate coordination and contact, public relations, and cooperation with all affected local, state, and/or federal agencies including the Federal Highway Administration; other Consultants and other Contractors; the general public; utilities and railroad companies; and local police, fire, and emergency services which may be affected by the Project and which are deemed to be the responsibility of the Consultant by the Department.
 6. **Staking:** Perform all staking for roadway in accordance with department standards, including, but not limited to, all staking to be performed by the engineer and the contractor as indicated in Pr SP 104(J) Lines, Grades and Elevations (or current applicable Contractor Staking Special provision). Including Mitigation staking, and perform all staking to be performed by the engineer included in SP 104(H) Bridge Structure Stakes and Control (or current applicable Contractor Staking Special provision for structures) to ensure accuracy and compliance with the contract documents. Resolve any plan errors, discrepancies or omissions identified by the Contractor and/or Consultant and notify the Project Manager.
 7. **Sedimentation control:** Perform inspection of the construction site to assure that proper soil erosion and sedimentation controls are in place. A MDEQ certified NPDES Stormwater Operator shall be assigned to inspect and document the project per the NPDES requirements. Any violation of the NPDES permit by the construction contractor must be immediately reported to the Project Manager. Personnel performing inspection on areas where soil and erosion control are needed, must have completed the Soil and Erosion control training, phase 1, 2, and 3. A person in possession of a current SESC training certificate shall be onsite at all times, and shall be available to meet with MDEQ personnel who may visit the site.
 8. **Progress:** Keep daily diaries, sketches, logs, and records consistent with Department practice as may be needed to record the Contractor's progress. Notify the Project Manager of any anticipated Contractor's requests for extensions of time. Notify the

- Project Manager upon receipt of any Contractor's requests for extensions of time.
9. **Changes/Extras/Adjustments:** Notify the Project Manager immediately of any unanticipated Project conditions and any changes, extras, or adjustments to the contract **before** processing a Work Order and/or Contract Modification.
 10. **Contentious Issues:** Resolve any problems, issues, discrepancies, or other items brought to the attention of the Consultant by the Contractor. Provide written documentation of the resolution of such issues. Keep the Project Manager informed of all such issues.
 11. **Contractor Claims:** Represent the Department as the Project Engineer on any and all claims for extra compensation and denied extensions of time requests filed on behalf of the Construction Contractor and/or Subcontractor on the Project against the Department. These claims shall be represented by the Consultant in accordance with Section 104.09 of the 1996 Standard Specification for Construction and/or the Department's Written Claim Procedures in effect at the time the Construction Contractor files the claim.
 12. **Staff Reductions:** Withdraw any personnel or halt any services no longer required, at the request of the Department, or within a reasonable time after the lack of need becomes apparent to the Consultant or the Project Manager. The consultant will not be reimbursed for the cost of personnel charged to a project that the Project Manager has determined was unnecessary.
 13. **Consultant Deliverables:** Collect, properly label or identify, and deliver to the Department all original diaries, logs, notebooks, accounts, records, reports, other documents, and Project files prepared by the Consultant in the performance of the Agreement, upon completion or termination of the Agreement. Return, upon completion or termination of the Agreement, all Specifications, Manuals, guides, written instructions, construction contracts and plans, unused forms, and all other documents and materials furnished by the Department. The Consultant may be responsible for replacing lost documents or materials at a fair and reasonable price.
 14. **Soils:** The consultant shall notify MDOT Soils engineer for any needs that arise in the field.
 15. **Traffic Control:** The consultant shall inspect all traffic control items prior to any devices being placed on the job. The consultant shall also make at least daily inspections of all traffic control devices to ensure compliance with all MDOT standards. The ATSSA guidelines for condition of traffic control devices shall be used. Traffic control will be emphasized on this project.
- B. For Project Inspection, the Consultant shall:**
1. **Ongoing Inspection:** Provide inspection of all Contractor field construction work, provide quality control, and confirm substantial conformance with the Specifications, Plans, and Proposal. Arrange for non-compliance work to be made whole by the Contractor or to find the non-compliance work acceptable to the Consultant and, where necessary, to the MDOT Design Project Manager. Inform the above Project Manager of non-compliance work and trends toward borderline compliance.
 2. **Final Inspection:** Complete a final inspection of all work included in the Project, or such portions thereof eligible for acceptance, after notification by the Contractor that the work is completed or after the Consultant's records show the work is completed. The final inspection shall include notifying the Contractor in writing of particular defects to be remedied if work is not acceptable to the Consultant.
 3. **Final Acceptance:** Ascertain that each and every part of the Project has been performed in accordance with the plans and specifications, or such modifications thereof as may

have been approved, and accept the Project. Invite the Project Manager and other Department personnel, as directed by current Department policy, to participate in the final acceptance.

C. For Testing and Reporting, the Consultant shall:

1. **Material Testing and Density Control:** Sample or test, or both, materials including but not limited to, concrete quality assurance testing including concrete cylinder breaks, bituminous testing; off site aggregate testing, on site aggregate density testing and reporting, furnish off-site inspections and tests of and concrete aggregates, testing of required materials according to Materials Sampling Guide to be incorporated in the work, and reject Contractor's work and materials not meeting the Specifications, Plans, Proposal, the Michigan Construction Manual, the Materials Sampling Guide, Materials Quality Assurance Manual, and any and all other applicable references, guidelines, and/or procedures manuals. Determine the acceptability of materials found to be in non-compliance. Immediately inform the Project Manager of non-compliance work and trends toward borderline compliance.
2. The Consultant will submit all cores and samples to the University Region Materials and Testing laboratory on a daily basis.
3. **Material Certification:** Make certain that acceptable test reports and/or material certifications from the supplier have been received, prior to the incorporation of materials in the work, for materials tested off the Project site.
4. **Material Reports:** Submit Material test reports, including but not limited, the Inspector's Report of Concrete Placed 1174A, Aggregate Inspection Reports 1900 & 1901, Bituminous QA reports, Concrete QA reports, and the "Moisture and Density Determination, Nuclear Method", Form 582B, etc. to the distribution list and the person shown below **within one day of the testing**. The efficiency of the consultant in getting the "Moisture and Density Determination, Nuclear Method", Form 582B, copy to the Lansing, Density Technology Unit, 8885 Ricks Road, Lansing Mich 48909 will be measured by that unit and reflected on the consultant's evaluation. All submitted 582B forms, "Moisture and Density Determination, Nuclear Method" shall be submitted to the following person and as shown on the distribution list.

Paul Frank, Area Density Specialist
MDOT - University Region, Soils and Materials Lab,
2800 North Elm Rd
Jackson, MI 49201

D. For Measurement, Computation and Documentation of Quantities, the Consultant shall:

1. **Documentation:** Measure and compute quantities, and provide appropriate documentation of all materials incorporated in the work and items of work completed, and maintain an item record account using FieldManager software. Use the most current available version of FieldManager as the primary system for automation of all required office work.
2. **Insufficient Tested Materials:** Track insufficient tested materials and notify the Contractor on a bi-weekly basis.

E. For Reporting and Record Keeping, the Consultant shall:

1. **Reports-Consultant Generated:** Prepare such periodic, intermediate and final reports and

records as may be required by the Department and as are applicable to the Project, which may include, but are not limited to:

- a. Inspector's Daily Reports,
- b. Work Orders,
- c. Construction Item and Tested Material Records using FieldManager,
- d. Transfer of Tested Materials,
- e. Monthly Report on Material Inspection,
- f. Moisture and Density Determination Reports, (Form 582BM)
- g. Inspector's Report of Concrete Placed (Form 1174A-M)
- h. NPDES Stormwater Operator Reports, must be prepared by a certified stormwater operator.
- i. Labor Compliance, such as the Weekly Employment and OJT Report (Form 1199),
- j. Construction Estimate Bi-Weekly Report,
- k. Bi-Weekly Construction Progress Report and Weekly Statement of Working Days Charged
- l. Force Accounts.
- m. Contract Modifications (Recommendations and Authorizations),
- n. Extension of Time and Liquidated Damages,
- o. Contractor Evaluation (Form 1182),
- p. Reduction in Reserve, and
- q. Damage Claim Notice (Form 1119)
- r. Other records and/or reports as required for the individual Project by the Project Manager and/or as required by Specifications, Plans, Proposal, the Michigan Construction Manual, the Materials Sampling Guide, and any and all other applicable references, guidelines, and/or procedures manuals.

All of these preceding documents shall be submitted in a timely manner. Distribution shall be made as shown on the forms distribution list or as instructed by TSC engineering staff.

2. **Reports-Contractor Generated:** Review, process, and/or approve Construction Contractor submittal of records and reports required by the Department as applicable to the Project which may include, but not limited to:
 - a. Working Drawings,
 - b. Weekly Employment Reports, Certified Payrolls
 - c. Contractor's claims for additional compensation and extension(s) of time, and
 - d. Other reports and records as required for the individual Project by the Project Manager.
3. **Project Files:** Maintain project files in accordance with the MDOT Office Manual and Departmental procedures. Copy select correspondence and documentation to the Project Manager.

F. For Finaling All Project Documentation, the Consultant shall:

1. **Final Measure and Summarize:** Final field measure applicable items of work. Prepare final summaries for applicable items of work.
2. **Project Review/Certification:** Participate in and resolve items determined to be insufficient during the Department's review(s) of project records and/or during the Project Engineer Certification Process prior to submitting the Final Estimate.

Within **45 calendar days** of the actual project completion date, the project records shall be ready for the Final Records Review.

3. **Final Documents:** Prepare and submit the Final Estimate, Final Quantity Sheets, Final Marked As-Constructed Plans, and the Design/Construction Package Evaluation (Form 285-2). The Final Estimate Package shall be submitted to the Project Manager **within 30 days** of the Final Records Review.

SERVICES TO BE PERFORMED BY THE DEPARTMENT:

- A. The Project Manager shall furnish to the Consultant all Project-specific construction contracts, proposals, plans, plan revisions, written instructions, and other information and/or data as deemed necessary by the Project Manager for the Services required herein.
- B. The Department shall furnish off-site inspections and tests of steel, cement, bituminous mixture designs, sewer and drainage pipe, structural steel, prestressed girders and beams, traffic signs, and any other materials customarily tested in the Department laboratories with its own forces or by statewide contracts except concrete aggregates, aggregates, and concrete cylinders. The customary testing is described in the Materials Quality Assurance Manual with exceptions noted within the Specifications, Plans, and Proposal. The Consultant shall be responsible for the sampling and transportation of all the materials to be tested by Department personnel.
- C. The Project Manager shall provide general monitoring and quality auditing inspection of the Project to assure that the Project has been completed in reasonable conformance with the plans and specifications for Project Acceptance and to determine that the work performed to date by the Consultant for Services rendered is reasonable and appropriate before approving the Consultant's requests for progress payments.
- D. The Department shall provide the bituminous plant inspection required for Quality Assurance and will submit the QA reports to the Consultant Project Engineer for analysis and action. The Consultant shall still be responsible for all on-site bituminous inspection required, including, but not limited to, locating the required Quality Assurance cores, and coordinating with the contractor regarding this sampling.
- E. The Project Engineer/Manager will arrange and conduct the Preconstruction meeting as well as prepare and distribute the meeting minutes.
- F. MDOT shall perform soil borings and subsurface investigation as necessary throughout the contract. Which includes: Inspecting grade at bottom of removal limits for "subbase-in-place requirements", Inspecting earth grade for undercut and sub-grade underdrain limits, Inspecting foundation for substructure units (bridges, major culverts and Headwalls), Routinely inspect the grading areas for adequate erosion controls. Provide oversight for peat excavation treatment. Take soil borings as needed for soil issues in the field, and prepare recommendations for all the above listed duties as needed.

CONSULTANT PAYMENT:

All invoices/bills for services must be directed to the Department and follow the 'then current' guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's Bulletin Board System. This document contains instructions and forms that must be followed and used for invoicing/billing; payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for Services rendered shall not exceed the "Cost Plus Fixed Fee Not to Exceed Maximum Amount" unless an increase is approved in accordance with the contract with the Consultant. All invoices/bills must be submitted within 14 calendar days of the last date of services being performed for that invoice.

Direct expenses will not be paid in excess of that allowed by the Department for its own employees. Supporting documentation must be submitted, with the invoice/bill, for all billable expenses on the Project. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the CE activities of this Project. Hours spent in administrative, clerical, or accounting roles for billing and support, are not considered allowable hours; there will be no reimbursement for these hours.

Reimbursement for overtime hours will be limited to time spent on this project in excess of forty hours per week. Any variations to this rule should be included in the price proposal